THE INVENTION CLAIMED IS:

1. A micro device processing system useable with a micro device using assembly system having a control system and a robotic handing system, comprising:

an input feeder for providing micro devices;

a processing system capable of processing micro devices, the processing system adjacent to the input feeder and positionable adjacent to the assembly system;

the input feeder and the processing system capable of communication with the control system, the input feeder responsive to communication with the control system to feed the micro devices, the processing system capable of processing the micro devices and communicating to the control system, and the robotic handling system responsive to communication of the processing system with the control system to take the micro devices and place the micro devices on the assembly system.

2. The micro device processing system as claimed in claim 1 including:

a handling system adjacent to the input feeder and the processing system, the handling system capable of moving micro devices from the input feeder and positioning the micro devices on the processing system.

3. The micro device processing system as claimed in claim 2 wherein:

the input feeder is capable of providing the micro devices in a linear row;

the processing system is capable of positioning a plurality of micro devices in a linear row during processing and the linear row of the processing system is parallel to the linear row of the input feeder; and

the handling system is capable of moving micro devices from the linear row of the input feeder to the linear row of the processing system.

4. The micro device processing system as claimed in claim 3 wherein:

the input feeder and the processing system are collinear with the linear row of the input feeder collinear with the linear row of the processing system.

5. The micro device processing system as claimed in claim 3 including:

a transfer mechanism operatively associated with the processing system for moving micro devices between the input feeder and the robotic handling system.

6. The micro device processing system as claimed in claim 5 wherein:

the transfer mechanism is capable of moving micro devices between the processing system and the robotic handling system.

7. The micro device processing system as claimed in claim 5 wherein:

the transfer mechanism is capable of moving micro devices in a linear row perpendicular to the linear row of the processing system.

8. The micro device processing system as claimed in claim 5 wherein:

the transfer mechanism is capable of moving micro devices between the input feeder and the processing system.

9. The micro device processing system as claimed in claim 6 including:

a second input feeder for moving micro devices between the processing system and the robotic handling system;

and wherein:

the handling system is capable of moving the micro devices from the transfer mechanism to the processing system and from the processing system to the second input feeder.

10. The micro device processing system as claimed in claim 9 wherein:

the handling system is capable of moving the micro devices from the input feeder to the transfer mechanism.

11. A micro device assembly system programming system useable with a micro device using assembly system having a control system and a robotic handing system, comprising:

an input feeder for providing unprogrammed micro devices in a linear row;

a programming system capable of programming a plurality of unprogrammed micro devices, the programming system adjacent to the input feeder and positionable adjacent to the assembly system, the programming system having a plurality of in line sockets for positioning micro devices for programming;

the input feeder and the programming system capable of communication with the control system, the input feeder responsive to communication with the control system to feed the unprogrammed micro devices, the programming system capable of positioning and programming the plurality of micro devices and communicating to the control system, and the robotic handling system responsive to communication of the programming system with the control system to take the micro devices and place the micro devices on the assembly system.

12. The micro device assembly system programming system as claimed in claim 11 including:

a handling system operatively associated with the input feeder and the programming system, the handling system capable of along the in line sockets for moving micro devices from the input feeder and positioning the micro devices on the programming system.

13. The micro device assembly system programming system as claimed in claim 12 wherein:

the input feeder is capable of providing the micro devices in a linear row;

the programming system has the plurality of in line sockets parallel to the linear row of micro devices provided by the input feeder; and

the handling system is capable of at least two axes of movement for moving micro devices from the linear row of the input feeder to the linear row of the programming system.

14. The micro device assembly system programming system as claimed in claim 13 wherein:

the handling system is capable of only two axes of movement for moving micro devices from the linear row of the input feeder to the linear row of the programming system; and

the input feeder and the programming system are collinear with the linear row of the input feeder collinear with the linear row of the programming system.

15. The micro device assembly system programming system as claimed in claim 13 including:

a transfer mechanism operatively associated with the programming system for moving micro devices between the input feeder and the robotic handling system.

16. The micro device assembly system programming system as claimed in claim 15 wherein:

the handling system is capable of moving micro devices from the programming system to the transfer mechanism; and

the transfer mechanism is capable of moving micro devices between the programming system and the robotic handling system for pickup by the robotic handling system.

17. The micro device assembly system programming system as claimed in claim 15 wherein:

the handling system is capable of moving micro devices from the programming system to the transfer mechanism; and

the transfer mechanism is capable of moving micro devices in a linear row perpendicular to the plurality of in line sockets for pickup by the robotic handling system..

18. The micro device assembly system programming system as claimed in claim 15 wherein:

the handling system is capable of moving a fixed plurality of micro devices simultaneously from the input feeder to the transfer mechanism; and

the transfer mechanism is capable of moving the fixed plurality of micro devices between the input feeder and the programming system; and

the handling system is capable of moving the fixed plurality of micro devices simultaneously from the transfer mechanism to the programming system.

19. The micro device assembly system programming system as claimed in claim 16 including:

a second input feeder for moving micro devices between the programming system and the robotic handling system;

and wherein:

the handling system is capable of moving the fixed plurality of micro devices from the programming system to the second input feeder for pickup by the robotic handling system.

20. The micro device assembly system programming system as claimed in claim 19 wherein:

the transfer mechanism is capable of moving the micro devices in the opposite direction from which the linear row is provided by the input feeder.

21. A micro device using assembly system for feeding, programming, and placing micro devices on circuit boards comprising:

a longitudinally extending conveyor system for the circuit boards;

a robotic handing system capable of picking up the micro devices and placing the micro devices on the circuit boards

a control system for controlling the conveyor system and the robotic handling system;

an input feeder for providing micro devices in a linear row, the input feeder having a width, a height, and a depth greater than the width, the input feeder having its depth perpendicular to and offset from the longitudinal length of the conveyor system;

a programming system capable of programming a plurality of micro devices, the programming system adjacent to the input feeder and positioned adjacent to the assembly system, the programming system having at least a plurality of in line sockets for positioning micro devices for programming, the sockets in line parallel with the depth of the input feeder;

the input feeder and the programming system capable of communication with the control system, the input feeder responsive to communication with the control system to feed the unprogrammed micro devices, the programming system capable of positioning and programming the plurality of micro devices and communicating to the control system, and the robotic handling system responsive to communication of the programming system with the control system to pickup the micro devices and place the micro devices on the circuit boards.

22. The assembly system as claimed in claim 21 including:

a handling system operatively associated with the input feeder and the programming system, the handling system capable of along the in line sockets for moving micro devices from the input feeder and positioning the micro devices on the programming system.

23. The assembly system as claimed in claim 22 wherein:

the input feeder is capable of providing the micro devices in a linear row;

the programming system has the plurality of in line sockets parallel to the linear row of micro devices provided by the input feeder and perpendicular to the conveyor system; and

the handling system is capable of at least two axes of movement for moving micro devices from the linear row of the input feeder to the linear row of the programming system.

24. The assembly system as claimed in claim 23 wherein:

the handling system is capable of only two axes of movement for moving micro devices from the linear row of the input feeder to the linear row of the programming system; and

the input feeder and the programming system are collinear with the linear row of the input feeder collinear with the linear row of the programming system.

25. The assembly system as claimed in claim 23 including:

a transfer mechanism operatively associated with the programming system for moving micro devices between the input feeder and the robotic handling system.

26. The assembly system as claimed in claim 25 wherein:

the handling system is capable of moving micro devices from the programming system to the transfer mechanism; and

the transfer mechanism is capable of moving micro devices between the programming system and the robotic handling system for pickup by the robotic handling system.

27. The assembly system as claimed in claim 25 wherein:

the handling system is capable of moving micro devices from the programming system to the transfer mechanism; and

the transfer mechanism is capable of moving micro devices in a linear row perpendicular to the plurality of in line sockets for pickup by the robotic handling system..

28. The assembly system as claimed in claim 25 wherein:

the handling system is capable of moving a fixed plurality of micro devices simultaneously from the input feeder to the transfer mechanism; and

the transfer mechanism is capable of moving the fixed plurality of micro devices between the input feeder and the programming system; and

the handling system is capable of moving the fixed plurality of micro devices simultaneously from the transfer mechanism to the programming system.

29. The assembly system as claimed in claim 26 including:

a second input feeder for providing micro devices in a linear row, the second input feeder having a width, a height, and a depth greater than the width, the second input feeder having its depth perpendicular to and offset from the longitudinal length of the conveyor system;

and wherein:

the handling system is capable of moving the fixed plurality of micro devices from the programming system to the second input feeder for pickup by the robotic handling system.

30. The assembly system as claimed in claim 29 wherein:

the transfer mechanism is capable of moving the micro devices in the opposite direction from which the linear row is provided by the input feeder.

31. The assembly system as claimed in claim 21 including:

a reject area accessible by a system selected from a group consisting of the handling system, the robotic handling system, and a combination thereof.

32. The assembly system as claimed in claim 21 wherein:

the input feeder is selected from a group of input feeder sources consisting of a tape and reel, a tray, tray stacker, tube, tube stacker, and a combination thereof.